

**Timing of the Project:** An important consideration in selecting BMPs is the timing and duration of the project. Projects that will proceed during the wet season and projects that will last through several seasons must take all necessary precautions to remain in compliance with the water quality standards.

### **3.2.3 Step 3 - Construction SWPPP Development and Implementation**

After collecting and analyzing the data to determine the site limitations, the planner can then develop a Construction SWPPP. Each of the 12 elements below must be considered and included in the Construction SWPPP unless site conditions render the element unnecessary and the exemption from that element is clearly justified in the narrative of the SWPPP.

#### **Element #1: Mark Clearing Limits**

- Prior to beginning land disturbing activities, including clearing and grading, clearly mark all clearing limits, sensitive areas and their buffers, and trees that are to be preserved within the construction area. These shall be clearly marked, both in the field and on the plans, to prevent damage and offsite impacts.
- Plastic, metal, or stake wire fence may be used to mark the clearing limits.
- [The duff layer, native top soil, and natural vegetation shall be retained in an undisturbed state to the maximum extent practicable.](#)
- Suggested BMPs
  - BMP C101: Preserving Natural Vegetation
  - BMP C102: Buffer Zones
  - BMP C103: High Visibility Plastic or Metal Fence
  - BMP C104: Stake and Wire Fence

#### **Element #2: Establish Construction Access**

- Construction vehicle access and exit shall be limited to one route if possible, or two for linear projects such as roadways where one access is necessary for large equipment maneuvering.
- Access points shall be stabilized with quarry spall or crushed rock to minimize the tracking of sediment onto public roads.
- Wheel wash or tire baths should be located on site, if applicable.
- [If sediment is tracked off site, roads shall be](#) ~~Roads shall be~~ cleaned thoroughly at the end of each day. Sediment shall be removed from roads by shoveling or pickup sweeping and shall be transported to a

controlled sediment disposal area. Street washing will be allowed only after sediment is removed in this manner.

- Street wash wastewater shall be controlled by pumping back on site or otherwise be prevented from discharging into systems tributary to state surface waters.
- Construction access restoration shall be equal to or better than the pre-construction condition.
- Suggested BMPs  
BMP C105: Stabilized Construction Entrance  
BMP C106: Wheel Wash  
BMP C107: Construction Road/Parking Area Stabilization

### **Element #3: Control Flow Rates**

- Properties and waterways downstream from development sites shall be protected from erosion due to increases in the volume, velocity, and peak flow rate of stormwater runoff from the project site, as required by local plan approval authority.
- Downstream analysis is necessary if changes in offsite flows could impair or alter conveyance systems, streambanks, bed sediment, or aquatic habitat.
- Where necessary to comply with Minimum Requirement #7, stormwater detention facilities shall be constructed as one of the first steps in grading. Detention facilities shall be functional prior to construction of site improvements (e.g. impervious surfaces).
- The local permitting agency may require pond designs that provide additional or different stormwater flow control. This may be necessary to address local conditions or to protect properties and waterways downstream from erosion due to increases in the volume, velocity, and peak flow rate of stormwater runoff from the project site.
- If permanent infiltration ponds are used for flow control during construction, these facilities should be protected from siltation during the construction phase.
- Suggested BMPs  
BMP C240: Sediment Trap  
BMP C241: Temporary Sediment Pond  
Refer to Volume 3, Detention Facilities, [Infiltration Stormwater Quantity and Flow Control](#)

#### **Element #4: Install Sediment Controls**

- ~~The duff layer, native top soil, and natural vegetation shall be retained in an undisturbed state to the maximum extent practicable.~~
- Prior to leaving a construction site or prior to discharge to an infiltration facility, stormwater runoff from disturbed areas shall pass through a sediment pond or other appropriate sediment removal BMP. Runoff from fully stabilized areas may be discharged without a sediment removal BMP, but must meet the flow control performance standard of Element #3, bullet #1. Full stabilization means concrete or asphalt paving; quarry spalls used as ditch lining; or the use of rolled erosion products, a bonded fiber matrix product, or vegetative cover in a manner that will fully prevent soil erosion. The Local Permitting Authority shall inspect and approve areas fully stabilized by means other than pavement or quarry spalls.
- BMPs intended to trap sediment on site shall be constructed as one of the first steps in grading. These BMPs shall be functional before other land disturbing activities take place.
- Earthen structures such as dams, dikes, and diversions shall be seeded and mulched according to the timing indicated in Element #5.
- BMPs intended to trap sediment on site must be located in a manner to avoid interference with the movement of juvenile salmonids attempting to enter off-channel areas or drainages, often during non-storm events, in response to rain event changes in stream elevation or wetted area.
- Suggested BMPs
  - BMP C230: Straw Bale Barrier
  - BMP C231: Brush Barrier
  - BMP C232: Gravel Filter Berm
  - BMP C233: Silt Fence
  - BMP C234: Vegetated Strip
  - BMP C235: Straw Wattles
  - BMP C240: Sediment Trap
  - BMP C241: Temporary Sediment Pond
  - BMP C250: Construction Stormwater Chemical Treatment
  - BMP C251: Construction Stormwater Filtration

#### **Element #5: Stabilize Soils**

- Exposed and unworked soils shall be stabilized by application of effective BMPs that protect the soil from the erosive forces of raindrops, flowing water, and wind.
- From October 1 through April 30, no soils shall remain exposed and unworked for more than 2 days. From May 1 to September 30, no

soils shall remain exposed and unworked for more than 7 days. This stabilization requirement applies to all soils on site, whether at final grade or not. These time limits may be adjusted by the local permitting authority if it can be shown that the average time between storm events justifies a different standard.

- Soils shall be stabilized at the end of the shift before a holiday or weekend if needed based on the weather forecast.
- Applicable practices include, but are not limited to, temporary and permanent seeding, sodding, mulching, plastic covering, erosion control fabrics and matting, soil application of polyacrylamide (PAM), the early application of gravel base on areas to be paved, and dust control.
- Selected soil stabilization measures shall be appropriate for the time of year, site conditions, estimated duration of use, and the water quality impacts that stabilization agents may have on downstream waters or ground water.
- Soil stockpiles must be stabilized from erosion, ~~and~~ protected with sediment trapping measures, and located away from storm drain inlets, waterways and drainage channels.
- Linear construction activities such as right-of-way and easement clearing, roadway development, pipelines, and trenching for utilities, shall be conducted to meet the soil stabilization requirement. Contractors shall install the bedding materials, roadbeds, structures, pipelines, or utilities and re-stabilize the disturbed soils so that:
  - from October 1 through April 30 no soils shall remain exposed and unworked for more than 2 days and
  - from May 1 to September ~~30~~30, no soils shall remain exposed and unworked for more than 7 days.
- Suggested BMPs
  - BMP C120: Temporary and Permanent Seeding
  - BMP C121: Mulching
  - BMP C122: Nets and Blankets
  - BMP C123: Plastic Covering
  - BMP C124: Sodding
  - BMP C125: Topsoiling
  - BMP C126: Polyacrylamide for Soil Erosion Protection
  - BMP C130: Surface Roughening
  - BMP C131: Gradient Terraces
  - BMP C140: Dust Control
  - BMP C180: Small Project Construction Stormwater Pollution Prevention

## **Element #6: Protect Slopes**

- Design, construct, and phase cut and fill slopes in a manner that will minimize erosion.
- Consider soil type and its potential for erosion.
- Reduce slope runoff velocities by reducing continuous length of slope with terracing and diversions, reduce slope steepness, and roughen slope surface.
- ~~Divert upslope drainage and run-on waters with interceptors at top of slope.~~ Off-site stormwater (run-on) shall be diverted away from slopes and disturbed areas with interceptor dikes and/or swales. Stormwater from off site should be handled-managed separately from stormwater generated on the site. ~~Diversion of off-site stormwater around the site may be a viable option. Diverted flows shall be redirected to the natural drainage location at or before the property boundary.~~
- ~~Contain downslope collected flows in pipes, slope drains, or protected channels.~~ At the top of slopes, collect drainage in pipe slope drains or protected channels to prevent erosion.– Temporary pipe slope drains shall handle the peak flow from a 10 year, 24 hour event; permanent slope drains shall be sized for a 25 year, 24 hour event. Check dams shall be used within channels that are cut down a slope.
- Provide drainage to remove ground water intersecting the slope surface of exposed soil areas.
- Excavated material shall be placed on the uphill side of trenches, consistent with safety and space considerations.
- Stabilize soils on slopes, as specified in Element #5.
- Suggested BMPs
  - BMP C120: Temporary and Permanent Seeding
  - BMP C130: Surface Roughening
  - BMP C131: Gradient Terraces
  - BMP C200: Interceptor Dike and Swale
  - BMP C201: Grass-Lined Channels
  - BMP C204: Pipe Slope Drains
  - BMP C205: Subsurface Drains
  - BMP C206: Level Spreader
  - BMP C207: Check Dams
  - BMP C208: Triangular Silt Dike (Geotextile-Encased Check Dam)

## **Element #7: Protect Drain Inlets**

- Storm drain inlets operable during construction shall be protected so that stormwater runoff does not enter the conveyance system without first being filtered or treated to remove sediment.
- Approach roads shall be kept clean. Sediment and street wash water shall not be allowed to enter storm drains without prior and adequate treatment unless treatment is provided before the storm drain discharges to waters of the state.
- Inlets should be inspected weekly at a minimum and daily during storm events. Inlet protection devices should be cleaned or removed and replaced before six inches of sediment can accumulate.
- Suggested BMPs  
BMP C220: Storm Drain Inlet Protection

#### **Element #8: Stabilize Channels and Outlets**

- Temporary on-site conveyance channels shall be designed, constructed, and stabilized to prevent erosion from the expected [flow peak 10 minute](#) velocity of a [Type 1A, 210-year](#), 24-hour frequency storm for the developed condition.
- Stabilization, including armoring material, adequate to prevent erosion of outlets, adjacent streambanks, slopes, and downstream reaches shall be provided at the outlets of all conveyance systems.
- Suggested BMPs  
BMP C202: Channel Lining  
BMP C209: Outlet Protection

#### **Element #9: Control Pollutants**

- All pollutants, including waste materials and demolition debris, that occur on site during construction shall be handled and disposed of in a manner that does not cause contamination of stormwater. Woody debris may be chopped and spread on site.
- Cover, containment, and protection from vandalism shall be provided for all chemicals, liquid products, petroleum products, and non-inert wastes present on the site (see Chapter 173-304 WAC for the definition of inert waste). [On-site fueling tanks shall include secondary containment.](#)
- Maintenance and repair of heavy equipment and vehicles involving oil changes, hydraulic system drain down, solvent and de-greasing cleaning operations, fuel tank drain down and removal, and other activities which may result in discharge or spillage of pollutants to the ground or into stormwater runoff must be conducted using spill prevention measures, such as drip pans. Contaminated surfaces shall be

cleaned immediately following any discharge or spill incident. Emergency repairs may be performed on-site using temporary plastic placed beneath and, if raining, over the vehicle.

- Wheel wash or tire bath wastewater shall be discharged to a separate on-site treatment system or to the sanitary sewer.
- Application of agricultural chemicals including fertilizers and pesticides shall be conducted in a manner and at application rates that will not result in loss of chemical to stormwater runoff. Manufacturers' recommendations for application rates and procedures shall be followed.
- BMPs shall be used to prevent or treat contamination of stormwater runoff by pH modifying sources. These sources include bulk cement, cement kiln dust, fly ash, new concrete washing and curing waters, waste streams generated from concrete grinding and sawing, exposed aggregate processes, and concrete pumping and mixer washout waters. Stormwater discharges shall not cause [or contribute to](#) a violation of the water quality standard for pH in the receiving water.
- Suggested BMPs  
BMP C151: Concrete Handling  
BMP C152: Sawcutting and Surfacing Pollution Prevention  
See Volume IV – Source Control BMPs

#### **Element #10: Control De-Watering**

- Foundation, vault, and trench de-watering water shall be discharged into a controlled conveyance system prior to discharge to a sediment pond. Channels must be stabilized, as specified in Element #8.
- Clean, non-turbid de-watering water, such as well-point ground water, can be discharged to systems tributary to state surface waters, as specified in Element #8, provided the de-watering flow does not cause erosion or flooding of receiving waters. These clean waters should not be routed through stormwater sediment ponds.
- Highly turbid or contaminated dewatering water from construction equipment operation, clamshell digging, concrete tremie pour, or work inside a cofferdam shall be handled separately from stormwater.
- Other disposal options, depending on site constraints, may include:
  1. infiltration
  2. transport off site in vehicle, such as a vacuum flush truck, for legal disposal in a manner that does not pollute state waters,
  3. [Ecology-approved](#) on-site [chemical](#) treatment ~~using chemical treatment~~ or other suitable treatment technologies,

4. sanitary sewer discharge with local sewer district approval, or
5. use of a sedimentation bag with outfall to a ditch or swale for small volumes of localized dewatering.

#### **Element #11: Maintain BMPs**

- Temporary and permanent erosion and sediment control BMPs shall be maintained and repaired as needed to assure continued performance of their intended function. Maintenance and repair shall be conducted in accordance with BMPs [specifications](#).
- ~~Sediment control BMPs shall be inspected weekly or after a runoff-producing storm event during the dry season and daily during the wet season. The inspection frequency for stabilized, inactive sites shall be determined by the local permitting authority based on the level of soil stability and potential for adverse environmental impacts.~~
- Temporary erosion and sediment control BMPs shall be removed within 30 days after final site stabilization is achieved or after the temporary BMPs are no longer needed. Trapped sediment shall be removed or stabilized on site. Disturbed soil resulting from removal of BMPs or vegetation shall be permanently stabilized.

#### **Element #12: Manage the Project**

- Phasing of Construction.

Development projects shall be phased where feasible in order to prevent [soil erosion](#) ~~and~~, to the maximum extent practicable, the transport of sediment from the ~~development project~~ site during construction. Revegetation of exposed areas and maintenance of that vegetation shall be an integral part of the clearing activities for any phase.

Clearing and grading activities for developments shall be permitted only if conducted pursuant to an approved site development plan (e.g., subdivision approval) that establishes permitted areas of clearing, grading, cutting, and filling. When establishing these permitted clearing and grading areas, consideration should be given to minimizing removal of existing trees and minimizing disturbance and compaction of native soils except as needed for building purposes. These permitted clearing and grading areas and any other areas required to preserve critical or sensitive areas, buffers, native growth protection easements, or tree retention areas as may be required by local jurisdictions, shall be delineated on the site plans and the development site.

- Seasonal Work Limitations



From October 1 through April 30, clearing, grading, and other soil disturbing activities shall only be permitted if shown to the satisfaction of the local permitting authority that the transport of sediment from the construction site to receiving waters will be prevented through a combination of the following:

1. Site conditions including existing vegetative coverage, slope, soil type, and proximity to receiving waters; and
2. Limitations on activities and the extent of disturbed areas; and
3. Proposed erosion and sediment control measures.

Based on the information provided and local weather conditions, the local permitting authority may expand or restrict the seasonal limitation on site disturbance. The local permitting authority shall take enforcement action - such as a notice of violation, administrative order, penalty, or stop-work order under the following circumstances:

- If, during the course of any construction activity or soil disturbance during the seasonal limitation period, sediment leaves the construction site causing a violation of the surface water quality standard; or
- If clearing and grading limits or erosion and sediment control measures shown in the approved plan are not maintained.

The following activities are exempt from the seasonal clearing and grading limitations:

1. Routine maintenance and necessary repair of erosion and sediment control BMPs;
2. Routine maintenance of public facilities or existing utility structures that do not expose the soil or result in the removal of the vegetative cover to soil; and
3. Activities where there is one hundred percent infiltration of surface water runoff within the site in approved and installed erosion and sediment control facilities.

- Coordination with Utilities and Other Contractors

The primary project proponent shall evaluate, with input from utilities and other contractors, the stormwater management requirements for the entire project, including the utilities, when preparing the Construction SWPPP.

- Inspection and Monitoring

All BMPs shall be inspected, maintained, and repaired as needed to assure continued performance of their intended function. Site inspections shall be conducted a person who is knowledgeable in the principles and practices of erosion and sediment control. The person must have the skills to 1) assess the site conditions and construction activities that could impact the quality of stormwater, and 2) assess the effectiveness of erosion and sediment control measures used to control the quality of stormwater discharges.

A Certified ~~Professional in~~ Erosion and Sediment Control Specialist shall be identified in the Construction SWPPP and shall be on-site or on-call at all times. ~~—~~ Certification may be obtained through an approved training program that meets the erosion and sediment control training standards established by Ecology.

~~the Construction Site Erosion and Sediment Control Certification Program offered by the Washington Department of Transportation/Associated General Contractors WSDOT/AGC of Washington — Education Foundation, Construction Site Erosion and Sediment Control Certification Program or any equivalent local or national certification and/or training program.~~

~~Sampling and analysis of the stormwater discharges from a construction site may be necessary on a case by case basis to ensure compliance with standards. The local permitting authority may establish monitoring and reporting requirements when necessary.~~

Whenever inspection and/or monitoring reveals that the BMPs identified in the Construction SWPPP are inadequate, due to the actual discharge of or potential to discharge a significant amount of any pollutant, the appropriate BMPs or design changes shall be implemented ~~SWPPP shall be modified, as appropriate, in a as soon as possible timely manner.~~

- ~~Maintaining enance of the~~ an Updated Construction SWPPP

The Construction SWPPP shall be retained on-site or within reasonable access to the site.

The ~~Construction~~ SWPPP ~~shall~~ be modified whenever there is a significant ~~change in the design, construction, operation, or maintenance of any BMP at the construction site that has, or could have, a significant effect on the discharge of pollutants to waters of the state.~~

The SWPPP shall be modified if during inspections or investigations by site staff, or by local or state officials, it is determined that the SWPPP is ineffective in eliminating or significantly minimizing pollutants in stormwater discharges from the site.

Based on the results of an inspection, the SWPPP shall be modified as necessary to include additional or modified BMPs designed to correct problems identified. Revisions to the SWPPP shall be completed within seven (7) days following the inspection.

### **3.3 Checklists for Construction SWPPPs Requirements**

The Construction SWPPP ~~consists~~shall consist of two parts: a narrative and the drawings. The following two sections describe the contents of the narrative and the drawings. A checklist is included that can be used as a quick reference to determine if all the major items are included in the Construction SWPPP.

#### **3.3.1 Narrative**

—Twelve (12) Elements – Describe how the Construction SWPPP addresses each of the 12 required elements. Include the type and location of BMPs used to satisfy the required element. If an element is not applicable to a project, provide a written justification for why it is not necessary.

- Project description - Describe the nature and purpose of the construction project. Include the total size of the ~~project~~ area, any increase in existing impervious area; the total area expected to be disturbed by clearing, grading, excavation or other construction activities, including off-site borrow and fill areas;~~disturbed~~, and the volumes of grading cut and fill that are proposed.
- Existing site conditions - Describe the existing topography, vegetation, and drainage. Include a description of any structures or development on the parcel including the area of existing impervious surfaces.
- Adjacent areas - Describe adjacent areas, including streams, lakes, wetlands, residential areas, and ~~roads, that~~roads that might be affected by the construction project. Provide a description of the downstream drainage leading from the site to the receiving body of water.
- Critical areas - Describe areas on or adjacent to the site that are classified as critical areas. Critical areas that receive runoff from the site shall be described up to ¼ mile away. The distance may be increased by the ~~Local~~local government Plan Approval Permitting Authority. Describe special requirements for working near or within these areas.
- Soil - Describe the soil on the site, giving such information as soil names, mapping unit, erodibility, settleability, permeability, depth, texture, and soil structure.
- Potential erosion problem areas - Describe areas on the site that have potential erosion problems.

- Construction phasing - Describe the intended construction sequence and timing of construction activities any proposed construction phasing.
- Construction schedule - Describe the construction schedule. If the schedule extends into the wet season, describe what activities will continue during the wet season and how the transport of sediment from the construction site to receiving waters will be prevented.
- Financial/ownership responsibilities - Describe ownership and obligations for the project. Include bond forms and other evidence of financial responsibility for environmental liabilities associated with construction.
- Engineering calculations – Attach any calculations made for the design of such items as sediment ponds, diversions, and waterways, as well as calculations for runoff and stormwater detention design (if applicable). Engineering calculations must bear the signature and stamp of an engineer licensed in the state of Washington.
- A responsible, certified erosion control specialist shall be identified. Telephone and/or pager numbers should be included.

### 3.3.2 Drawings

- Vicinity map - Provide a map locating the site in relation to the surrounding area and with enough detail to identify the location of the construction site; and roads and waters of the state within one mile of the site.
- Site map - Provide a site map(s) showing the following features. The site map requirements may be met using multiple plan sheets for ease of legibility.
  1. A legal description of the property boundaries or an illustration of property lines (including distances) in the drawings.
  2. The direction of north in relation to the site.
  3. Existing structures and roads, if present.
  4. The boundaries of and label the different soil types.
  5. Areas of potential erosion problems.
  6. Any on-site and adjacent surface waters, critical areas, their buffers, FEMA base flood boundaries, and Shoreline Management boundaries.
  7. Existing contours and drainage basins and the direction of flow for the different drainage areas.
  8. Final grade contours, and developed condition drainage basins, and the direction of flow.

9. Areas of soil disturbance, including all areas affected by that are to be clearing, ed and grading and excavation.
  9. Locations where stormwater discharges to surface waters.
  10. Existing unique or valuable vegetation and the vegetation that is to be preserved.
  11. Cut and fill slopes indicating top and bottom of slope catch lines.
  12. Stockpile, waste storage, and vehicle storage/maintenance areas.
  13. Total cut and fill quantities and the method of disposal for excess material.
- Conveyance systems - Show on the site map the following temporary and permanent conveyance features:
    1. Locations for swales, interceptor trenches, or ditches.
    2. Drainage pipes, ditches, or cut-off trenches associated with erosion and sediment control and stormwater management.
    3. Temporary and permanent pipe inverts and minimum slopes and cover.
    4. Grades, dimensions, and direction of flow in all ditches and swales, culverts, and pipes.
    5. Details for bypassing off-site runoff around disturbed areas.
    6. Locations and outlets of any dewatering systems.
  - Location of detention BMPs - Show on the site map the locations of stormwater detention BMPs.
  - Erosion and Sediment Control (ESC) Facilities-BMPs - Show on the site map the all major structural and nonstructural ESC following ESC facilitiesBMPs including:
    1. The location of sediment pond(s), pipes and structures.
    2. Dimension pond berm widths and inside and outside pond slopes.
    3. The trap/pond storage required and the depth, length, and width dimensions.
    4. Typical section views through pond and outlet structure.
    5. Typical details of gravel cone and standpipe, and/or other filtering devices.
    6. Stabilization technique details for inlets and outlets.
    7. Control/restrictor device location and details.
    8. Mulch and/or recommended cover of Stabilization practices for berms and , slopes, and disturbed areas.

9. Rock specifications and detail for rock check dam, if used.
10. Spacing for rock check dams as required.
11. Front and side sections of typical rock check dams.
12. The location, detail, and specification for silt fence.
13. The construction entrance location and a detail.

- Detailed drawings - Any structural practices used that are not referenced in this manual or other local manuals should be explained and illustrated with detailed drawings.
- Other pollutant BMPs - Indicate on the site map the location of BMPs to be used for the control of pollutants other than sediment.
- Monitoring locations - Indicate on the site map the water quality sampling locations ~~to be used for monitoring water quality on the construction site~~, if required by the local permitting authority or the Department of Ecology. Sampling stations shall be located in accordance with applicable permit requirements~~upstream and downstream of the project site discharge point.~~
- Standard notes are suggested in Appendix II-A. Notes addressing construction phasing and scheduling shall be included on the drawings.

# Construction Stormwater Pollution Prevention Plan Checklist

Project Name: \_\_\_\_\_

City Reference No. \_\_\_\_\_

Review Date: \_\_\_\_\_

On-site Inspection Review Date: \_\_\_\_\_

Construction SWPPP Reviewer: \_\_\_\_\_

## **Section I – Construction SWPPP Narrative**

### **1. Construction Stormwater Pollution Prevention Elements**

- \_\_\_ a. Describe how each of the Construction Stormwater Pollution Prevention Elements has been addressed through the Construction SWPPP.
- \_\_\_ b. Identify the type and location of BMPs used to satisfy the required element.
- \_\_\_ c. Written justification identifying the reason an element is not applicable to the proposal.

### **12 Required Elements - Construction Stormwater Pollution Prevention Plan**

- \_\_\_ 1. Mark Clearing Limits.
- \_\_\_ 2. Establish Construction Access.
- \_\_\_ 3. Control Flow Rates.
- \_\_\_ 4. Install Sediment Controls.
- \_\_\_ 5. Stabilize Soils.
- \_\_\_ 6. Protect Slopes.
- \_\_\_ 7. Protect Drain Inlets.
- \_\_\_ 8. Stabilize Channels and Outlets.
- \_\_\_ 9. Control Pollutants.
- \_\_\_ 10. \_\_\_ Control De-Watering.
- \_\_\_ 11. \_\_\_ Maintain BMPs
- \_\_\_ 12. \_\_\_ Manage the Project.

### **2. Project Description**

- \_\_\_ a. Total ~~Project-project Area~~area.
- \_\_\_ b. Total proposed impervious area.
- \_\_\_ c. Total proposed area to be disturbed, including off-site borrow and fill areas.
- \_\_\_ d. Total volumes of proposed cuts/ and fill.

### **3. Existing Site Conditions**

- \_\_\_ a. Description of the existing topography.
- \_\_\_ b. Description of the existing vegetation.
- \_\_\_ c. Description of the existing drainage.

# Construction Stormwater Pollution Prevention Plan Checklist

Project Name: \_\_\_\_\_

City Reference No. \_\_\_\_\_

## **Section II - Erosion and Sediment Control Plans**

### **1. General**

- ☐ a. Vicinity [Mapmap, with roads and waters of the state within one mile of the site.](#)
- ☐ b. City of \_\_\_\_\_ Clearing and Grading Approval Block
- ☐ c. Erosion and Sediment Control Notes

### **2. Site Plan**

- ☐ a. Legal description of subject property.
- ☐ b. North Arrow
- ☐ c. Indicate boundaries of existing vegetation, e.g. tree lines, pasture areas, etc.
- ☐ d. Identify and label areas of potential erosion problems.
- ☐ e. Identify any on-site or adjacent [surface waters](#), critical areas and associated buffers.
- ☐ f. Identify FEMA base flood boundaries and Shoreline Management boundaries (if applicable)
- ☐ g. Show existing and proposed contours.
- ☐ h. Indicate drainage basins and direction of flow for individual drainage areas.
- ☐ i. Label final grade contours and identify developed condition drainage basins.
- ☐ j. Delineate areas that are to be cleared and graded.
- ☐ k. Show all cut and fill slopes indicating top and bottom of slope catch lines.

### **3. Conveyance Systems**

- ☐ a. Designate locations for swales, interceptor trenches, or ditches.
- ☐ b. Show all temporary and permanent drainage pipes, ditches, or cut-off trenches required for erosion and sediment control.
- ☐ c. Provide minimum slope and cover for all temporary pipes or call out pipe inverts.
- ☐ d. Show grades, dimensions, and direction of flow in all ditches, swales, culverts and pipes.
- ☐ e. Provide details for bypassing off-site runoff around disturbed areas.
- ☐ f. Indicate locations and outlets of any dewatering systems.

### **4. Location of Detention BMPs**

- ☐ a. Identify location of detention BMPs.



# Construction Stormwater Pollution Prevention Plan Checklist

Project Name: \_\_\_\_\_

City Reference No. \_\_\_\_\_

## 5. Erosion and Sediment Control Facilities

- \_\_\_ a. Show the locations of sediment trap(s), pond(s), pipes and structures.
- \_\_\_ b. Dimension pond berm widths and inside and outside pond slopes.
- \_\_\_ c. Indicate the trap/pond storage required and the depth, length, and width dimensions.
- \_\_\_ d. Provide typical section views through pond and outlet structure.
- \_\_\_ e. Provide typical details of gravel cone and standpipe, and/or other filtering devices.
- \_\_\_ f. Detail stabilization techniques for outlet/inlet.
- \_\_\_ g. Detail control/restrictor device location and details.
- \_\_\_ h. Specify mulch and/or recommended cover of berms and slopes.
- \_\_\_ i. Provide rock specifications and detail for rock check dam(s), if applicable.
- \_\_\_ j. Specify spacing for rock check dams as required.
- \_\_\_ k. Provide front and side sections of typical rock check dams.
- \_\_\_ l. Indicate the locations and provide details and specifications for silt fabric.
- \_\_\_ m. Locate the construction entrance and provide a detail.

## 6. Detailed Drawings

- \_\_\_ a. Any structural practices used that are not referenced in the Ecology Manual should be explained and illustrated with detailed drawings.

## 7. Other Pollutant BMPs

- \_\_\_ a. Indicate on the site plan the location of BMPs to be used for the control of pollutants other than sediment, e.g. concrete wash water.

## 8. Monitoring Locations

- \_\_\_ a. Indicate on the site plan the water quality sampling locations to be used for monitoring water quality on the construction site, if applicable. Sampling stations shall be located upstream and downstream of the project site.